

What is claimed is:

AMENDMENTS TO THE CLAIMS

Please replace the claims, including all prior versions, with the listing of claims below.

Listing of Claims:

1. (Currently Amended) ~~Method~~ A method for authenticating a subscriber (~~MT,6~~) for utilizing services in a wireless LAN (~~WLAN,10~~) while using an IP multimedia subsystem (~~IMS,3~~) of a mobile radio network, ~~characterized in that~~ comprising:
_____ a subscriber (~~MT,6~~) who is to be authenticated and who is located at a location having wireless LAN coverage, receives receiving an IP address from the wireless LAN (~~WLAN,10~~) in an attributed manner, after which the subscriber receiving the IP address is authenticated himself to the IP multimedia subsystem (~~IMS,3~~) while giving this the IP address, by means of SIP registration;; and
_____ informing whereby an element (~~WAGW,2~~) of the wireless LAN (~~WLAN,10~~) is informed of the result of the authentication of the subscriber (~~MT,6~~) with regard to the IP multimedia system (~~IMS,3~~).
2. (Currently Amended) ~~Method~~ The method according to Claim 1, ~~characterized in that~~ wherein
at the subscriber (~~MT,6~~) of at the wireless LAN (~~WLAN,10~~) in at the IP multimedia subsystem (~~IMS,3~~) is authenticated while using a home subscriber system (~~HSS,5~~).
3. (Currently Amended) ~~Method~~ The method according to ~~one of the above claims,~~
~~characterized in that~~ claim 1, wherein
at the subscriber (~~MT,6~~) in at the wireless LAN (~~WLAN,10~~) in at the IP multimedia subsystem (~~IMS,3~~) is authenticated while using an authentication server (~~AAA server~~).

4. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,
~~characterized in that~~ claim 2, wherein
the subscriber (~~MT,6~~) transmits, via the wireless LAN (~~WLAN,10~~), an SIP register message to a device (~~CSCF,4~~) of the IP multimedia system (~~IMS,3~~), which transmits a request for authentication of ~~this~~ the IP multimedia subsystem (~~IMS,3~~) subscriber, ~~using the mechanisms provided for an IP multimedia subsystem authentication,~~ to the home subscriber system (~~HSS,5~~), after which the home subscriber system (~~HSS,5~~) authenticates the subscriber (~~MT,6~~) ~~using these mechanisms~~ and communicates the result of the authentication to the _wireless LAN access gateway (~~WAGW,2~~).

5. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,
~~characterized in that~~ claim 1, wherein
an association is implemented between the subscriber terminal (~~MT,6~~) and the wireless LAN (~~WLAN,10~~) ~~for the purpose of transmitting and receiving via the radio interface between subscriber~~ (~~MT,6~~) and wireless LAN (~~WLAN,10~~).

6. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,
~~characterized in that~~ claim 1, wherein
the subscriber terminal (~~MT,6~~) ~~receives an~~ the IP address from ~~the~~ an address area of the wireless LAN (~~WLAN,10~~), with which ~~together with all other IP transport-based data~~ ~~it can~~ transmits and receives SIP messages that transport authentication messages from and to the IP multimedia subsystem (~~IMS,3~~).

7. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,
~~characterized in that~~ claim 1, wherein

~~the~~ access to services is controlled via ~~a~~ the wireless LAN access gateway (~~WAGW,2~~), which monitors successful authentication in the IP multimedia subsystem (~~IMS,3~~).

8. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,
~~characterized in that~~ claim 1, wherein
the wireless LAN (~~WLAN,10~~) is connected to the IP multimedia subsystem (~~IMS,3~~) via a Gi interface.

9. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,
~~characterized in that~~ claim 1, wherein
the wireless LAN (~~WLAN,10~~) is connected to the IP multimedia subsystem (~~IMS,3~~) via an Mm interface.

10. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,
~~characterized in that~~ claim 1, wherein
~~the~~ a result of the authentication (~~P-CSCF,1~~) is fed to ~~the~~ a wireless LAN access gateway (~~WAGW,2~~) by a (proxy-call state control function)/policy control function (~~P-CSCF,1~~) at a location having wireless LAN coverage.

11. (Currently Amended) ~~Method~~ The method according to Claim 7,
~~characterized in that~~ wherein
the wireless LAN (~~WLAN,10~~) has a proxy-call state control function node (~~P-CSCF,1~~) which forwards the SIP messages to ~~the~~ a corresponding entity in the IP multimedia subsystem (~~IMS,3~~) and controls the WLAN access gateway (~~WAGW,2~~) with regard to the authentication result of the IP multimedia subsystem (~~IMS,3~~).

12. (Currently Amended) ~~Method~~ The method according to Claim 7,
~~characterized in that wherein~~
instructions are provided to the WLAN access gateway (~~WAGW,2~~) based on the basis
~~of the~~ a result of the authentication in the IP multimedia subsystem (~~IMS,3~~), as to how
~~the~~ data traffic of a subscriber (~~MT,6~~) is to be handled by the wireless LAN access
gateway (~~WAGW,2~~), ~~in particular instructions regarding the blocking of data traffic.~~

13. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~
~~claims,~~
~~characterized in that~~ claim 12, wherein
the proxy-call state control function (~~P-CSCF,1~~), ~~by means of a policy control function,~~
controls the data traffic through the wireless LAN access gateway (~~WAGW,2~~) and
grants, restricts, increases or declines ~~the~~ a quantity and/or quality of the data flow of a
subscriber (~~MT,6~~) through the wireless LAN access gateway (~~WAGW,2~~).

14. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~
~~claims,~~
~~characterized in that~~ claim 13, wherein
the policy control function is part of the proxy-call state control function node (~~P-~~
~~CSCF,1~~) or is a separate unit.

15. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~
~~claims,~~
~~characterized in that~~ claim 12, wherein
the result of the authentication is fed to the wireless LAN access gateway (~~WAGW,2~~)
by the call state control function (~~CSCF,4~~)/policy control function in the IP multimedia
subsystem (~~IMS,3~~).

16. (Currently Amended) ~~Method~~ The method according to Claim 12,

~~characterized in that wherein~~

the call state control function node (~~CSCF,4~~) of the IP multimedia subsystem (~~IMS,3~~) controls the wireless LAN access gateway (~~WAGW,2~~) with regard to the authentication result of the IP multimedia subsystem (~~IMS,3~~).

17. (Currently Amended) ~~Method~~ The method according to Claim 13,

~~characterized in that wherein~~

a Go interface is installed between the call state control function node (~~CSCF,4~~) of the IP multimedia subsystem (~~IMS,3~~) and the wireless LAN access gateway (~~WAGW,2~~), for protected data transfer.

18. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,

~~characterized in that claim 1, wherein~~

~~the~~ an authentication result is evaluated by expanded functionalities in the wireless LAN access gateway (~~WAGW,2~~).

19. (Currently Amended) ~~Method~~ The method according to Claim 16,

~~characterized in that wherein~~

the authentication result received from the IP multimedia subsystem (~~IMS,3~~) is converted by the wireless LAN access gateway (~~WAGW,2~~), ~~whereby in said the~~ wherein the WLAN access gateway (~~WAGW,2~~) allows subscriber data to pass there through ~~completely or with restrictions~~.

20. (Currently Amended) ~~Method~~ The method according to Claim 13,

~~characterized in that wherein~~

the evaluation of the authentication result is implemented using an "application layer gateway".

21. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,

~~characterized in that~~ claim 1, wherein

the subscriber (~~MT,6~~) of the wireless LAN (~~WLAN,10~~) is also a subscriber of the mobile communication network.

22. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,

~~characterized in that~~ claim 1, wherein

the wireless LAN network (~~WLAN,10~~) is integrated into mobile communication networks with ~~the help~~ aid of ETSI HiperLan and IEEE 802.11.

23. (Currently Amended) ~~Device~~ A device for authenticating a subscriber (~~MT,6~~) for utilizing services in a wireless LAN (~~WLAN,10~~) with ~~the help~~ aid of an IP multimedia subsystem (~~IMS,3~~) of a mobile radio network, ~~said device~~ having comprising:

[[~~-~~]] an IP multimedia system (~~IMS,3~~) for authenticating a subscriber (~~MT,6~~) ~~who is~~ to be authenticated by means of SIP registration, and ~~who is~~ located at a location having wireless LAN coverage, by giving an IP address allocated by the wireless LAN (~~WLAN,10~~);_i and

[[~~-~~]] an IP multimedia subsystem (~~IMS,3~~) for informing an element (~~WAGW,2~~) of the wireless LAN (~~WLAN,10~~) of ~~the~~ a result of the authentication of the subscriber (~~MT,6~~) with regard to the IP multimedia subsystem (~~IMS,3~~).

24. (Currently Amended) ~~Device~~ The device according to Claim 23, ~~characterized in that~~ wherein

a second device constituting the proxy call state control function node (~~CSCF,1~~) is a node in the wireless LAN (~~WLAN,10~~).

25. (Currently Amended) ~~Device~~ The device according to ~~one of Claims 23 to 24,~~
~~characterized in that~~ claim 24, wherein
the second device constituting the proxy call state control function node (~~CSCF,1~~) of
the IP multimedia subsystem (~~IMS,3~~) is provided for controlling authentication in the
wireless LAN (~~WLAN,10~~).

26. (Currently Amended) ~~Device~~ The device according to ~~one of Claims 23 to 25,~~
~~characterized in that~~ claim 25, wherein
the wireless LAN access gateway (~~WAGW,2~~) has a third device that is configured such
that ~~said~~ the device converts the authentication result which is received from the IP
multimedia subsystem (~~IMS,3~~), by allowing subscriber data to pass there through
~~completely or with restrictions.~~